

PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of

Michihiro OHSUGE

Appln. No.:

Group Art Unit: Unknown

Confirmation No.: Unknown

Examiner: Unknown

Filed: April 09, 2001

For: MULTI-PATH DETECTING CIRCUIT AND SYSTEM

PRELIMINARY AMENDMENT

Commissioner for Patents
Washington, D.C. 20231

Sir:

Prior to examination, please amend the above-identified application as follows:

IN THE CLAIMS:

Please enter the following amended claims:

3. (Amended) The multi-path detecting circuit according to one of claims 1 or 2, comprising a long period profile storing part for storing the output of the long period delayed profile averaging part.

5. (Amended) The multi-path detecting circuit according to one of claims 1 or 2, wherein the short period is set to about 10 msec., and the long period is set to about 100 msec.

6. (Amended) The multi-path detecting circuit according to one of claims 1 or 2, which is used for a CDMA receiver having a RAKE finger part, to which the timing output from the finger timing determining part is supplied.

Michihiro OHSUGE
Q63851
Preliminary Amendment

11. (Amended) A CDMS receiver using the multi-path detecting system according to any one of claims 7-10 comprising:

an antenna part for receiving radio transmitted data;
a high frequency signal receiving circuit for frequency converting the received signal;
an A/D converter part for converting the output of the high frequency signal receiving circuit from analog signal to digital signal;
the multi-path detecting circuit for receiving signal from the A/D converter part, detecting multi-path timing and determining the detected multi-path timing as reception timing input to RKE finger part; and
a RAKE synthesizing part for synthesizing data from the RAKE finger part as received at each timing.

Please add the following new claims:

12. The multi-path detecting circuit according to claim 3, wherein the short period is set to about 10 msec., and the long period is set to about 100 msec.

13. The multi-path detecting circuit according to claim 4, wherein the short period is set to about 10 msec., and the long period is set to about 100 msec.

14. The multi-path detecting circuit according to claim 3, which is used for a CDMA receiver having a RAKE finger part, to which the timing output from the finger timing determining part is supplied.

Michihiro OHSUGE
Q63851
Preliminary Amendment

15. The multi-path detecting circuit according to claim 4, which is used for a CDMA receiver having a RAKE finger part, to which the timing output from the finger timing determining part is supplied.

16. The multi-path detecting circuit according to claim 5, which is used for a CDMA receiver having a RAKE finger part, to which the timing output from the finger timing determining part is supplied.

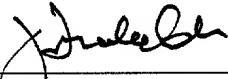
Michihiro OHSUGE
Q63851
Preliminary Amendment

REMARKS

Claims 1-16 are pending in the present application. Claims 2, 5-6, and 11 have been amended to delete improper multiple dependencies. Claims 12-16 have been added to retain the same scope of coverage as in the claims 2, 5-6, and 11 prior to the present Preliminary Amendment. The public should be advised that the present Preliminary Amendment is not considered or intended to be a narrowing amendment surrendering any equivalents.

Entry and consideration of this Amendment is respectfully requested.

Respectfully submitted,



J. Frank Osha
Registration No. 24,625

SUGHRUE, MION, ZINN,
MACPEAK & SEAS, PLLC
2100 Pennsylvania Avenue, N.W.
Washington, D.C. 20037-3213
Telephone: (202) 293-7060
Facsimile: (202) 293-7860

Date: April 9, 2001

Michihiro OHSUGE
Q63851
Preliminary Amendment

APPENDIX

VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS:

The claims are amended as follows:

3. The multi-path detecting circuit according to one of claims 1 and 2, comprising a long period profile storing part for storing the output of the long period delayed profile averaging part.

5. The multi-path detecting circuit according to one of claims 1 ~~to~~ 4 or 2, wherein the short period is set to about 10 msec., and the long period is set to about 100 msec.

6. The multi-path detecting circuit according to one of claims 1 ~~to~~ 5 or 2, which is used for a CDMA receiver having a RAKE finger part, to which the timing output from the finger timing determining part is supplied.

11. A CDMS receiver using the multi-path detecting system according to any one of claims 7-10 comprising:

an antenna part for receiving radio transmitted data;

a high frequency signal receiving circuit for frequency converting the received signal;

an A/D converter part for converting the output of the high frequency signal receiving circuit from analog signal to digital signal;

the multi-path detecting circuit for receiving signal from the A/D converter part,

detecting multi-path timing and determining the detected multi-path timing as reception timing input to RKE finger part; and

Michihiro OHSUGE
Q63851
Preliminary Amendment

a RAKE synthesizing part for synthesizing data from the RAKE finger part as received at each timing.

Claims 12-16 are added as new claims.